

ABSTRACT OF THE DISCLOSURE

An organic electroluminescent device including an anode; a hole-transporting region disposed over the anode; wherein the hole-transporting region contains at least one hole-transporting material; a metal sub-layer disposed within
5 the hole-transporting region; wherein the metal sub-layer contains at least one metal selected from group 4 through group 16 of the Periodic Table of Elements and the selected metal has a work-function higher than 4.0 eV; a light-emitting layer formed in contact with the hole-transporting region for producing light in response to hole-electron recombination; an electron-transporting layer disposed
10 over the light-emitting layer; and a cathode disposed over the electron-transporting layer. .